



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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Director

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January 22, 1996

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street
ATTN: CODE 1822, Mr. Richard Stryker
Norfolk, VA 23511-2699

Re: Draft Final Work Plan Sites 1 and 3, Round Two Remedial
Investigation, Naval Weapons Station Yorktown, Yorktown
Virginia.

Dear Mr. Stryker:

Thank you for providing the Department of Environmental
Quality, Federal Facilities Section the opportunity to review the
above referenced document. Attached are our comments on the
report.

If you have any questions, please feel free to contact me at
(804) 698-4202.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen Mihalko".

Stephen Mihalko
Remedial Project Engineer

cc: Rob Thomson, EPA Region III
Jeff Harlow, NWS Yorktown
Erica Dameron

**Naval Weapons Station, Yorktown, VA - Draft Final Work Plan,
Sites 1 & 3, Round Two Remedial Investigation - Staff Review
Comments**

Executive Summary

1. **Health and Ecological Risk Assessment** - The executive summary should specify that the Risk-Based Concentration Table data used by the EPA Region III, dated March 7, 1995, or its subsequent updated document will be used for evaluation of water, air, fish tissue, and soil data. In addition, the executive summary should specify that the groundwater samples data will be compared to the Commonwealth's groundwater standards and criteria. Other appropriate brief discussions should be provided regarding the planned ecological risk assessment using the collected data.
2. **Test Pits & Sampling** - Discrepancies exists between the executive summary, the NWSY Master Field Sampling Plan (FSP) (Baker, 1994), the Navy's correspondence to the DEQ, dated December 5, 1995, and RCRA requirements.

The Navy's correspondence indicates that the wastes buried at the landfills will not be sampled and that each test pit sample will be collected from the soil directly below the landfill waste. The correspondence indicates that the soil samples beneath the test pits will be analyzed for the full TCL organics, TAL inorganics, TOC, and nitramines.

According to the SOP F106 of the Master FSP, the test pit is to characterize the soil type and quality as well as determine the types of wastes buried. The excavated soil and wastes from the test pits are to be composite sampled and tested. Therefore, based upon the SOP, a representative composite sample should be taken of the soil and waste material from each test pit and tested to determine the types of wastes buried.

The staff believes that it is prudent to test the waste/soil composite to determine if it is of hazardous nature; the TCLP should be run. Therefore, the staff believes the test pits should be analyzed for the full TCL organics, TAL inorganics, TOC, nitramines, and the TCLP.

The Executive Summary and the other appropriate sections of the text should note that test pits will be logged and sampled in accordance with SOP F106 and that visual descriptions of the principal excavated constituents, wastes, and soils will be recorded.

3. Summary of Analyses Tables (Tables ES-1, ES-2, ES-3, ES-4) The above tables are incomplete as submitted. The tables need to be revised to be consistent with the narrative text, the above comments from the DEQ, the comments of the DEQ from correspondence dated November 6, 1995, and the Navy's reply comments dated December 5, 1995.

The tables need to show the appropriate IDW samples, etc., for the test pits, drill cuttings, well development water, etc., and the range of tests to be performed (Ignitability, Reactivity, Corrosivity, and TCLP) in addition to those proposed. Note that Tables ES-1, ES-2, and ES-3 do not show any IDW analyses, while Table ES-4 shows two IDW samples. The DEQ concurs that the subsurface soils at the bottom of the test pits should be tested as proposed; however, this is separate from the IDW testing.

Tables and the narrative text need to reflect that the groundwater and surface water testing for the following parameters: TOC, TDS, TKN, NH_3 , NO_3 . These parameters will be compared to groundwater and surface water standards and criteria and background data. (This area of concern was discussed in a conference call on December 18, 1995, between the staff of the DEQ, NWSY, LANTIV, EPA, and Baker Environmental, Inc.)

Section 2.0 - Site History And Results Of Previous Investigations

4. Nitrate, TKN, & Ammonia Testing - Page 2-6 discusses the presence of nitrates above the groundwater criteria. (Verified in Table 2-2) Therefore, TKN, NH_3 , and NO_3 need to be tested in all round two RI groundwater and surface water sampling. (See last paragraph of Item 3 above.)
5. Figure 2-5 - This figure does not show the locations of sample locations for 1SD05-001, 1SD05-002, 1SD06-001, 1SD06-101, 1SD06-002, and SD07-002. Please correct.

Section 4.0 - Technical Approach

6. Sections 4.1.1.4 & 4.2.1.4, Test Pit Excavation and Sampling - These sections need to be revised based upon our comments in item 2 above.
7. Section 4.1.2.2, Well Development - This section should mention the method of disposal of the IDW from the well development and bailing associated with the groundwater sampling.
8. Sections 4.1.2.3, Groundwater Sampling - This section needs to be revised to reflect the testing for the following parameters: TOC, TDS, TKN, NH_3 , NO_3 . These parameters will be compared to groundwater and surface water standards and criteria and background data.

9. Section 4.1.3, Surface Water/Sediment Investigation - This section also needs to be revised to reflect the testing for the following parameters: TOC, TDS, TKN, NH₃, NO₃. These parameters will be compared to groundwater and surface water standards and criteria and background data.
10. Tables 4-1 to 4-2 - These tables need to be revised to reflect the changes needed as specified in items 2 and 3 above.
11. Figure 4-1 - This figure shows that two of the three large debris areas (outside the Remedial Investigation Site 3) are targeted for one surface soil sample. The text does not appear to demonstrate that the debris areas have been adequately characterized by sampling to date. The proposed sampling scheme for the debris areas is believed to be insufficient. Therefore, the staff recommends that a minimum of two surface soil samples be taken from each of the three large debris areas. In addition, the staff recommends that two shallow subsoil borings be performed for each of the three large debris areas to the groundwater table. Sampling should be at the same interval specified for the other subsoil sampling. Sample locations should be well spaced over the areal extent of the identified debris areas.
12. Ecological Risk Assessment - Information from the Round One RI, which was provided in Section 2.0 of the draft final work plan, pesticide and PCB data were apparently not collected. Not having this information should be considered a data gap. Of additional concern is the fact that sampling sites were selected for the Round Two investigation based on the results of the 1st Round. Without pesticide and PCB data, how could sampling stations (within Indian Field Creek) be accurately selected?
- 13) With the pesticide/PCB data gap, it seems inappropriate to have excluded a sampling station within the pond located on the west side of Site 1 for the Round Two investigation.
- 14) Has EPA concurred with the final selection of sampling stations? In their 11/1/95 correspondence to the installation, they suggested two additional stations be added. EPA also recommended that benthos sampling be conducted in the 2nd quarter of the year. However, prior to the development of the draft final Work Plan for the Round Two RI, benthic samples were collected (in September 1995). Has EPA agreed with this?